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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,021	10/12/2001	Yutaka Morikawa	081848-0183	7597

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FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

TRINH, TAN H

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/975,021

Applicant(s)

MORIKAWA, YUTAKA

Examiner

TAN TRINH

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pasternak (U.S. Patent No. 5,936,949) in view of Miller (U.S. Patent No. 5406615).

Regarding claims 1 and 5, Pasternak teaches a point-to-multipoint wireless access system (see fig. 1) comprising a wireless base station (see fig. 1, wireless base station 100), a plurality of wireless subscriber's terminals (see fig. 1, wireless subscriber's terminals 102-103), a plurality of down-link channels for transmitting data from the wireless base station to respective the wireless subscriber's terminals (see fig. 1, col. 2, lines 7-16), and a plurality of up-link channels for transmitting data from respective the wireless subscriber's terminal to the wireless base station (see fig. 1, col. 2, lines 7-27 and lines 43-65), wherein the down-link channels use a first wireless band and the up-link channels use a second wireless band (see figs. 1-3, col. 5, line 39-col. 6, line 9), Wherein the first wireless band is one of 26-GHz, 28-GHz, 38-GHz, 42-GHz, 5.3-GHz and 60-GHz (see col. 1, lines 60-62 and col. 6, lines 2-6). But Pasternak fails to teach the second wireless band is one of 2.4-GHz, ISM, 5-GHz and an optical frequency band and that is different from the first wireless band.

However, Miller teaches the second wireless band is one of 2.4-GHz, ISM, 5-GHz that is different from the first wireless band (see fig. 3, 2.4 GHz ISM band 303, col. 14, lines 44-58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Pasternak system and by the providing of the teaching of Miller on ISM uplink frequency bands technique, thereto in order to provide user with more bands in point-to-multipoint with long and short range (see Miller col. 14, lines 55-57).

Regarding claim 2, Pasternak teaches wherein the wireless base station is connected to the internet through a communication network (see col. 1, lines 16-18), each of the wireless subscriber's terminals is connected to a user's terminal through a user's Ethernet (see col. 9, line 54-col. 10, line 3), and the first wireless band is higher than the second wireless band (see figs. 1-3, col. 5, line 39-col. 6, line 9).

Regarding claim 3, Pasternak teaches wherein the wireless base station is connected to the internet through a communication network (see col. 1, lines 16-18), at least one of the wireless subscriber's terminals is connected to a user server through an Ethernet (see col. 9, line 54-col. 10, line 3), and the first wireless band is lower than the second wireless band (see col. 6, lines 2-3).

Regarding claim 4, Pasternak teaches wherein the wireless base station has a gateway function (see fig. 2, ATM Switch and ISDN Switch, col. 5, lines 50-61), and each of the subscriber's terminals is a wireless module connected to a data terminal (see fig. 2, wireless module (Subscriber radio Unit (SRU) 202) connected 203 to Subscriber Access system (SAS) 204 and data terminal (End-user), col. 5, lines 50-61).

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Regarding claim 6, Pasternak teaches wherein the sub-millimeter waveband or the millimeter waveband is one of 26-GHz, 28-GHz, 38-GHz and 42-GHz frequency bands (see col. 1, lines 60-62 and col. 6, lines 2-6).

Regarding claim 9, Pasternak wherein the first wireless band is a sub-millimeter waveband or a millimeter waveband (see col. 1, lines 61-62 and col. 6, lines 3-9), and the up-channel uses an optical signal (see col. 1, lines 16-21).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pasternak (U.S. Patent No. 5,936,949) in view of Miller (U.S. Patent No. 5,406,615) in view of Langley (U.S. Pub. No. 2005/0030885).

Regarding claim 7, Pasternak teaches the first wireless band is a 26 GHz frequency band, and Miller teaches the second wireless band is a 2.4-GHz ISM band (see rejection on claim 1 above). But Pasternak or Miller fails to teach the first wireless band is a 5.3 GHz frequency.

However, Langley teaches the first wireless band is a 5.3 GHz frequency (see Langley page 1, section [0008]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Pasternak and Miller system and by the providing of the teaching of Langley on 5.3 GHz ISM frequency bands technique, thereto in order to provide user with more bands in point-to-multipoint with long and short range.

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4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pasternak (U.S. Patent No. 5,936,949) in view of Miller (U.S. Patent No. 5,406,615) in view of Langley (U.S. Pub. No. 20050030885) further in view of Evans (U.S. Patent No. 6,240,556).

Regarding claim 8, Pasternak teaches the first wireless band is a 26-40 GHz frequency band (see rejection on claim 1 above), and Langley teaches the second wireless band is a 5-GHz ISM band (see Langley page 1, section [0008]). But Pasternak or Miller and Langley fail to teach the first wireless band is a 60 GHz frequency.

However, Evans teaches the first wireless band is a 60 GHz frequency (see abstract for transmitting and receiving lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Pasternak, Miller and Langley system and by the providing of the teaching of Evans on 60 GHz frequency bands technique, thereto in order to provide user with more bands in point-to-multipoint with long and short range.

Response to Arguments

5. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300, (for Technology Center 2600 only)

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*Hand-delivered responses should be brought to the Customer Service Window (now located at the **Randolph Building, 401 Dulany Street, Alexandria, VA 22314**).*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (571) 272-7888. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Nay Maung, can be reached at (571) 272-7882.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is (703) 306-0377.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tan H. Trinh
Art Unit 2684
Dec. 29, 2005

1/10/06

TILAHUN GESESSE
PRIMARY EXAMINER